

Application Serial No: 10/076,858
Attorney Docket No.: 51969 (ACT-183/184)

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-9. (Canceled)

10. (Currently Amended) A micromachined substrate comprising:

- a) a wet-etched pit having a minimum and a maximum width; and
- b) a dry-etched hole disposed in the wet-etched pit, wherein the dry-etched hole extends through the substrate and has a width less than or equal to the minimum width of the wet-etched pit.

11. (Previously Presented) The micromachined substrate of claim 10 wherein the substrate comprises <100> silicon.

12. (Currently Amended) The micromachined substrate of claim 10 wherein the wet-etched pit is an ~~pits are~~ anisotropically wet-etched pit ~~pits~~.

13. (Currently Amended) The micromachined substrate of claim 10 wherein the dry-etched hole is centered in the wet-etched pit.

14. (Currently Amended) The micromachined substrate of claim 10 further comprising an optical fiber disposed in the dry-etched hole.

15. (Currently Amended) A micromachined structure, comprising:
a substrate;

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a first wet-etched pit disposed in the substrate;
a second wet-etched pit disposed in the substrate, the second wet-etched pit
extending into the substrate a greater depth than the first wet-etched pit
and comprising a flat surface parallel to the upper surface of the substrate;
and
a dry-etched pit disposed between, and adjacent to, the first and second wet-
etched pits.

16. (Previously Presented) The micromachined structure of claim 15, wherein the substrate comprises <100> silicon.

17. (Currently Amended) The micromachined structure of claim 15, wherein the first wet-etched pit comprises ~~and second pits each comprise~~ a flat surface parallel to the upper surface of the substrate.

18. (Currently Amended) The micromachined structure of claim 17, comprising at least one of a VCSEL or a photodetector mounted to the flat surface of the second wet-etched pit.

19. (Currently Amended) A ~~The~~ micromachined structure of claim 15, comprising:
a substrate;
a first wet-etched pit disposed in the substrate;
a second wet-etched pit disposed in the substrate, the second wet-etched pit
extending into the substrate a greater depth than the first wet-etched pit;
and
a dry-etched pit disposed between, and adjacent to, the first and second wet-
etched pits;
wherein the dry-etched pit is disposed within the second wet-etched pit and
wherein the dry-etched pit circumscribes the first wet-etched pit..

20. (Currently Amended) The micromachined structure of claim 15, wherein the first wet-etched pit comprises a V-shaped cross-section.

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21. (Currently Amended) A The micromachined structure of claim 20, comprising:
a substrate;
a first wet-etched pit disposed in the substrate;
a second wet-etched pit disposed in the substrate, the second wet-etched pit
extending into the substrate a greater depth than the first wet-etched pit;
and
a dry-etched pit disposed between, and adjacent to, the first and second wet-
etched pits;
wherein the first wet-etched pit comprises a V-shaped cross-section and the
second wet-etched pit comprises a pyramidal pit.
22. (Currently Amended) The micromachined substrate of claim 21, comprising a ball lens disposed in the second wet-etched pit and an optical fiber disposed in the first wet-etched pit.
23. (Currently Amended) The micromachined structure of claim 15, wherein the dry-etched pit is a linear trench.
24. (Currently Amended) The micromachined substrate of claim 10 wherein the dry hole is disposed off-center in the wet-etched pit.
25. (Currently Amended) The micromachined structure of claim 10, wherein the wet-etched pit comprises a V-shaped cross-section.
26. (Currently Amended) The micromachined structure of claim 25, comprising a plurality of dry-etched holes disposed in the wet-etched pit.
27. (Currently Amended) The micromachined structure of claim 10, wherein the wet-etched pit comprises a pyramidal pit.
- 28-30. (Canceled)